

MAGNETICALLY LINED CONDUCTORS

Abstract of the Disclosure

A conductor with improved magnetic field per current ratio is disclosed. The conductor includes a magnetic liner lining a second surface and sides thereof. The
5 magnetic liner is preferably a super-paramagnet with high susceptibility or a ferromagnet with a microstructure where the size of the non-exchanged coupled micro domains is so small that their energy content is close to or small compared to kT that such films have super-paramagnetic properties and essentially behave like a paramagnet with high susceptibility.